



Implementation of Rapid HIV Testing at Emergency Departments in New Jersey

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ABSTRACT

Issue: The New Jersey Department of Health and Senior Services Division of HIV/AIDS Services (NJDHSS DHAS) introduced rapid HIV testing at selected emergency departments to reach persons at risk for HIV/AIDS who do not access other facets of the health care system. This expansion of publicly funded counseling and testing was undertaken to facilitate integration of HIV counseling and testing into a health care setting in which it was previously not available.

Setting: Staff at publicly funded counseling and testing sites serving the emergency departments received counseling training, rapid testing training, completed competency testing and passed proficiency testing prior to offering rapid HIV testing. All rapid testing sites were licensed by NJDHSS. Data was collected using the standard Centers for Disease Control and Prevention counseling and testing form.

Results: NJDHSS DHAS has conducted rapid testing at publicly funded counseling and testing sites since November 1, 2003. A new initiative in 2004 included rapid testing in emergency departments. By 12/1/04, 4 emergency departments offered rapid testing. Data received through November 19, 2004 indicates that 89 people had rapid testing 89 of whom (100%) received posttest counseling and their test results. Of the 89 people tested, 87 (97.8%) were negative and 2 (2.2%) were positive, both of whom were previously undiagnosed patients.

Lessons Learned: Rapid HIV testing has been successfully implemented at emergency departments in New Jersey. This allows access to HIV counseling and testing for at risk persons who otherwise may not have gone for HIV counseling and testing. Rapid testing identified previously undiagnosed persons who presented to emergency departments for complaints unrelated to HIV disease. Based on the success of rapid testing in emergency departments thus far, NJDHSS plans to expand rapid testing to more emergency departments.

INTRODUCTION

- New Jersey is a high prevalence state:
 - 5th in the US in cumulative reported AIDS cases,
 - 3rd in cumulative reported pediatric AIDS cases, and
 - 1st in the proportion of women with AIDS among its cumulative reported AIDS cases.¹
- The major focus of HIV prevention and control has been to promote the acceptance of risk reducing behaviors through prevention counseling and testing and to facilitate linkage to medical, prevention and other support services.²
- The percentage of adults in the United States who obtain an HIV test has remained 10–12% per year for more than a decade.³
- Antibody testing to diagnose HIV was introduced in 1985.⁴ The standard laboratory testing protocol for HIV requires obtaining a specimen and sending it to a licensed laboratory for testing. The patient needs to return for a second visit to receive test results.
- The Centers for Disease Control and Prevention (CDC) currently recommends that all providers integrate HIV counseling and testing into routine practice.⁵
- To improve the proportion of high risk persons tested for HIV and to increase the proportion of people who learn their test result, the New Jersey Department of Health and Senior Services Division of HIV/AIDS Services (NJDHSS DHAS) sought to provide rapid HIV testing at publicly funded counseling and testing sites using OraQuick®.

- Rapid testing offers the advantage of point-of-care testing with results available in 20 to 40 minutes.
- People do not need to return to obtain their test results. Therefore, more people learn their HIV status, and if infected can be referred for treatment, prevention programs, and social services much more rapidly.
- Five rapid HIV tests have been approved by the United States Food and Drug Administration (FDA) for commercial use:
 - Single Use Diagnostic System for HIV-1 (SUDS, Abbott Laboratories, Abbott Park, IL—no longer marketed),
 - OraQuick® HIV1 and the Oraquick® ADVANCE HIV-1/HIV-2 (Orasure Technologies, Bethlehem, PA),
 - Reveal™ (MedMira Laboratories, Halifax, Nova Scotia),
 - Unigold™ Recombigen® (Trinity Biotech plc (Wicklow, Ireland), and
 - Multispot HIV-1/HIV-2 (Bio-Rad Laboratories, Hercules, CA)
- Rapid diagnostic HIV testing has several clinical applications. These include:
 - assisting in diagnosis and counseling of patients with HIV disease,
 - reducing vertical HIV transmission for women who present in labor with unknown HIV status, and
 - reducing the risk of occupational and nonoccupational transmission of HIV.^{5,6}
- This poster describes the implementation and effectiveness of point-of-care rapid testing in New Jersey emergency departments.

METHODS

- OraQuick® was selected as the point-of-care rapid test. An OraQuick® device is depicted in Figure 1.



Figure 1. OraQuick® test device, :
From background to foreground:
Buffer vial in disposable tube rack,
Blood collection loop, and
OraQuick® HIV-1 antibody test device.

- Eleven emergency departments received New Jersey Department of Health and Senior Services (NJDHSS) funding to conduct rapid HIV testing.
- A rapid testing QA plan was developed, policies and procedure were developed, and New Jersey laboratory licenses expanded to include rapid testing prior to starting at each site.

- All persons performing the testing had a full day training on the testing procedure, QA plan, policies, and reducing the risk of occupational blood-borne pathogen transmission.
- All persons conducting testing passed competency and proficiency testing.
- Counselors completed a full day counseling training session for the rapid test, including proper completion of the CDC counseling and testing form.
- All preliminary positive rapid tests were confirmed with a Western blot performed by the NJDHSS laboratory.
- Each site submitted completed CDC counseling and testing forms to NJDHSS.
- The forms were scanned into the counseling and testing database.
- Data analysis was done using SAS (version 8.02, SAS Institute, Cary, NC) and Microsoft Access (version 2000, Microsoft Corporation, Redmond, WA).

RESULTS

- Figure 2 shows the location of the 11 ED's with rapid testing: Jersey City Medical Center, Morristown Memorial Hospital, Newark Beth Israel Medical Center, Robert Wood Johnson University Hospital, St. Francis Medical Center, Trinitas Hospital, UMDNJ Newark, Jersey Shore Medical Center, St. Joseph's Medical Center, Cooper University Hospital, and St. Michael's Medical Center.

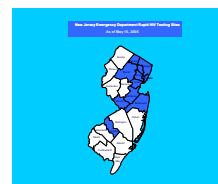


Figure 2. Emergency Department locations

- 897 rapid tests had been conducted through May 15, 2005.
 - 890 of the 897 (99.2%) persons tested received posttest counseling and results.
 - 872 (97.2%) tested HIV negative.
 - 25 (2.8%) had a preliminary positive and a confirmed positive result.
 - 18 of the 25 (72.0%) infected persons were newly identified positives.
 - 0 discordant lab results occurred. They all confirmed on Western Blot testing.

- As seen in Table 1, the majority of persons tested were minorities. The highest proportion of persons tested positive were:
 - female (13 of 433, 3.0%),
 - black (20 of 488, 4.1%),
 - age 30-39 (12 of 221, 5.4%).

	Overall	%	Negative	Positive
Male	464	52%	450	14
Female	433	48%	420	13
Total	897		872	25
Age (Years)				
< 12	9	1%	8	1
12-19	35	4%	34	1
20-29	35	4%	35	0
30-39	221	25%	205	16
40-49	172	19%	165	7
≥ 50	64	7%	62	2
Total	897		872	25
Race				
White	151	17%	150	1
Black	488	54%	468	20
Hispanic	171	19%	167	4
Asian/Pi	12	1%	12	0
Am. Ind./Al.	32	4%	32	0
Undetermined	12	1%	12	0
Total	897		872	25

Table 1. Demographic results.

CONCLUSIONS

- Rapid HIV testing has been successfully implemented at EDs in New Jersey.
- This is the first time that publicly funded HIV counseling and testing has been integrated into EDs in New Jersey.
- Integration of rapid testing in EDs provides access to HIV counseling and testing for at-risk persons who may not otherwise get tested for HIV. Those who are found to be infected are referred to a provider with experience and expertise treating HIV patients. In addition, these patients can be referred for prevention and social services.
- It is important to note that 72% of the people who tested positive at these EDs were previously undiagnosed.
- The majority of persons infected with HIV statewide are black, male, and in the 40–49 year old age range. The largest proportion of those identified in the ED are black, female, and in the 30–39 year old age range.
- Based on the success of publicly funded rapid testing at EDs thus far, NJDHSS plans to expand rapid testing to include more EDs.

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